United States Environmental Protection Agency

Discharge Monitoring Report (DMR) Pollutant Loading Tool

Data Dictionary for Search Results

[DRAFT FOR BETA RELEASE]

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1.   OVERVIEW

You have a new tool for analyses of wastewater pollutant discharge data. This tool, the Discharge Monitoring Report Pollutant Loading Tool (abbreviated "Loading Tool") provides you with pollutant loadings you can use to answer questions about the amount and toxicity of pollutant discharges to U.S. waters.

The tool calculates pollutant loadings from monitoring and permit data from EPA's Permit Compliance System (PCS) and Integrated Compliance Information System for the National Pollutant Discharge Elimination System (ICIS-NPDES). This tool helps you access wastewater pollutant discharge data, if you are a general user or if you are a more technical user:

- If you are a **general user**, you can use the *EZ Search* to quickly find discharge monitoring data based on simple searches.
- If you are a **technical user** (e.g., NPDES permit writer, watershed modeler, or regulatory agency), you can use the *Advanced Search* to access more detailed discharge monitoring data that you can download in a comma-separated value (CSV) file for further analysis in your own software application.

You can navigate the Loading Tool home page using the five tabs described in Table 1-1.

Table 1-1. Loading Tool Tabs and Descriptions

Tab	Description
Overview	This tab provide general information about the tool including: (1) How to Navigate the Tool; (2) Loading Tool Data Sources; (3) Data Scope and Limitations; and (4) 2010 Beta Release and Testing.
EZ Search	Provides a tool for general users to perform simple searches. The EZ Search tab is displayed by default.
Facility Search	Provides direct access to facility-level information, one facility at a time.
Advanced Search	Designed for technical users and provides increased flexibility on search criteria and data to be downloaded as a CSV file for post processing by the user.
Search EPA Lookup Tables	Provides access to crosswalks used by the Loading Tool to link information from different data sources.
Users Guide/Technical Documents	Provides the instructions, guides, and metadata to assist users with the Loading Tool.

Each of the search options listed in Table 1-1 produces results tables presenting pollutant loadings, information about the pollution source (e.g., facility and industry), and information about the pollution destination (i.e., receiving water). This document is intended to provide you with a reference for the search results tables:

- If you have a question about results from the EZ Search, see Section 2.
- If you have a question about Facility Search results, see Section 3.
- If you have a question about Advanced Search results, see Section 4.
- If you have a question about EPA Look-Up Table Search results, see Section 5.
- If you have a question about a term used on a Loading Tool search page, see Section 6.

If you still have questions about your search results after reviewing this document, please refer to the user guides on the "Users Guide/Technical Documents" tab.

2. EZ SEARCH RESULTS

The following search options are available in the EZ Search:

- Location Search Option
- Watershed Search Option
- Pollutant Search Option
- Industry Search Option
- Using Search Options in Combination

Table 2-1 lists the tables that the EZ Search displays depending on the search options that you selected:

Table 2-1. EZ Search Results Tables

Table	Location/ Watershed	Pollutant	Industry
Search Statistics (Section 2.1)	X	X	X
Top Pollutants by Pound (Section 2.2)	X		X
Top Pollutants by TWPE (Section 2.3)	X		X
Top SIC Discharges in Pounds (Section 2.4)	X		
Top SIC Discharges in TWPE (Section 2.5)	X		
Top SIC Discharges (Section 2.6)	X	X	
Top Discharges to Watersheds in Pounds (Section 2.7)			X
Top Discharges to Watersheds in TWPE (Section 2.8)			X
Top Receiving Watersheds (Section 2.9)		X	X
Top Facility Discharges in Pounds (Section 2.10)	X		X
Top Facility Discharges in TWPE (Section 2.11)	X		X
Top Facility Discharges (Section 2.12)	X	X	X

2.1 Search Statistics Table

Figure 2-1 shows an example Search Statistics Table. This table provides information about the scope of facilities that is included in your search results. Statistics include the total number of NPDES permits that are included in the search results, the number of permits that have monitoring data, and the number of permits that have discharge limits. Table 2-2 describes the Search Statistics table in more detail.

Search criteria:
State = 'MO' AND All pollutants AND All industries

Search statistics:

	Total Count	Majors	Minors	With Facility Info Only	With DMR Data	With Permit Limits
Counts of facilities:	2745	132	1446	215	1578	1561

Figure 2-1. Example EZ Search Results – Search Statistics Table

Table 2-2. Search Statistics Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Total Count:	Number of NPDES permits meeting search criteria.	ICIS-NPDES, PCS	No	At a minimum, at least one facility must meet the specified search criteria in order for the Loading Tool to display EZ Search results. Therefore, this field will always be greater than zero. For Location, Watershed, and Industry searches, this number represents the number of facilities that meet the search criteria, even if the facility does not have permit or DMR data in ICIS-NPDES or PCS. For Pollutant searches, this number represents the number of facilities that meet the search criteria and have information for the specified pollutant in either their permit limits or DMR data. See Data Scope and Limitations on the Overview tab for more information about DMR data completeness.
Majors:	Number of facility permits meeting search criteria that are classified as majors in PCS or ICIS-NPDES. Major facilities are identified by NPDES permitting authorities based on: toxic pollutant potential, ratio of discharge flow/stream flow volume, conventional pollutant loading, public health impact, water quality factors, and proximity to costal waters. Major facilities have an impact on receiving waters if not controlled; therefore, receive more regulatory attention than minor facilities.	ICIS-NPDES, PCS	Yes	The EZ Search identifies major facilities by searching for an ”M“ in the Major/Minor Status Code field from ICIS-NPDES and PCS. If this field is blank, then the Loading Tool assumes the facility is a minor.

Table 2-2. Search Statistics Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Minors:	Number of facility permits meeting search criteria that are classified as minors in PCS or ICIS-NPDES. Minor facilities are identified by NPDES permitting authorities based on: toxic pollutant potential, ratio of discharge flow/stream flow volume, conventional pollutant loading, public health impact, water quality factors, and proximity to costal waters. Minor facilities have a smaller impact on receiving waters than major facilities. Therefore, they receive less regulatory attention.	ICIS-NPDES, PCS	Yes	The EZ Search identifies major facilities by searching for an "M" in the Major/Minor Status Code field from ICIS-NPDES and PCS. If this field is blank, then the Loading Tool assumes the facility is a minor.
With Facility Info Only:	Number of facility permits that meet search criteria but do not have permit limits or DMR data in PCS or ICIS-NPDES.	ICIS-NPDES, PCS	Yes	If Pollutant criteria are specified in a query, then this result will be zero. This is because pollutant identification information is stored in permit limit data and DMR data in ICIS-NPDES and PCS, and for a facility to be identified based on pollutant criteria, the facility must have either permit limit data or DMR data. If a pollutant is not specified, then this field will display the number of facilities that meet the Location, Watershed, or Industry search criteria, but do not have permit limit data or DMR data in ICIS-NPDES or PCS.
With DMR Data:	Number of facility permits that have pollutant discharge data in PCS or ICIS-NPDES.	ICIS-NPDES, PCS	No	At a minimum, at least one facility meeting the specified search criteria must have DMR data in order for the Loading Tool to display EZ Search results. Therefore, this field will always be greater than zero.

Table 2-2. Search Statistics Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
With Permit Limits:	Number of facility permits that have numeric pollutant discharge limits in PCS or ICIS-NPDES.	ICIS-NPDES, PCS	Yes	Some facilities' NPDES permits require monitoring and reporting for a particular pollutant, but do not include a numeric limit for the pollutant discharge. The EZ Search will count these facilities in the "With DMR Data" field, but will not count them in the "With Permit Limits" field. Only facilities with numeric permit limits are counted in the "With Permit Limits" field.

2.2   Top Pollutants by Pound Table

Figure 2-2 shows an example Top Pollutant by Pound Table. This table lists the ten pollutants with the largest discharges that meet your search criteria. The pollutants are ranked in order of decreasing mass. Table 2-3 describes the Top Pollutant by Pound Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant.

Top Pollutants by Pound (2007)	
Pollutant Name	**Total Pounds**
Solids, total suspended	547,139
Oxygen	478,762
BOD, carbonaceous, 05 day, 20 C	233,973
Ammonia	5,584
Zinc	1,195
Nickel	421
Copper	344
Chromium	254
Lead	87.2
Cyanide	47.4
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Figure 2-2. Example EZ Search Results - Top Pollutants by Pound Table

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Table 2-3. Top Pollutants by Pound Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Total Pounds:	Annual mass discharge (in units of pounds) of a pollutant to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab).	ICIS-NPDES, PCS	No	This table does not display pollutants that have a total annual load of zero.

2.3   Top Pollutants by Toxic-Weighted Pounds Table

Figure 2-3 shows an example Top Pollutant by Toxic-Weighted Pound Table. This table lists the ten pollutants with the largest toxic-weighted discharges that meet your search criteria. The pollutants are ranked in order of decreasing toxic-weighted pound equivalents (TWPE). EPA's Office of Water's Engineering and Analysis Division (EAD) developed TWFs (in order to calculate TWPE) for use in its effluent limitations guidelines and standards (ELGs) development program to allow comparison of pollutants with varying toxicities using data from PCS, ICIS-NPDES, and EPA's Toxics Release Inventory (TRI).[1] The DMR Pollutant Loading Tool makes this data more available to the public (as this facility specific TWPE discharges were previously available only through EPA's docket system supporting its Effluent Guidelines program).

Table 2-4 describes the Top Pollutant by Toxic-Weighted Pound Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant.

Top Pollutants by Toxic-Weighted Pounds (2007)	
Pollutant Name	**Total TWPE**
Silver	533
Copper	217
Cadmium	211
Lead	195
Cyanide	52.7
Zinc	47.7
Nickel	42.06
Mercury	40.4
Chlorine	19.08
Chromium	17.8
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Figure 2-3. Example EZ Search Results – Top Pollutants by Toxic-Weighted Pounds Table

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[1] See a general discussion of how EPA develops, calculates, and uses TWFs in the following document: "Toxic Weighting Factor Development in Support of CWA 304(m) Planning Process," June 2006. [Available at: www.regulations.gov. Document No. EPA-HQ-OW-2004-0032-1634].

Table 2-4. Top Pollutants by Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Total TWPE:	EPA calculates TWPE in a given year using DMR data and pollutant specific toxic weighting factors (TWFs) in order to rank the relative toxicities of different pollutant discharges. Pollutants have different toxicities to human health and aquatic communities and the TWPE unit provides a relative measure of how the potential toxic nature of one pollutant compares against another pollutant. It is important to note that <u>this value is not a measure of risk or potential for human health impacts</u>. EPA presently lacks on a national scale the detailed exposure assessment data and tools necessary to complete a risk assessment with these DMR data (e.g., analyze for each industrial facility the fate and transport of discharged pollutants in an actual waterbody, exposure pathways of pollutants to populations in a watershed, and uptake of the discharged pollutants). To convert pollutant loadings into TWPE, EPA multiplies the pollutant mass (in pounds) by its toxic weighting factor (TWF). For example, total mercury (CAS No. 7439976) has a TWF equal to 117 TWPE/lbs-mercury while total copper (CAS No. 7440508) has a TWF equal to 0.63 TWPE/lbs-copper. Therefore a discharge of 1 pound of mercury equals 117 TWPE discharged while a discharge of 1 pound of copper equals 0.63 TWPE discharged. Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).

2.4   Top SIC Discharges in Pounds Table

Figure 2-4 shows an example Top SIC Discharges in Pounds Table. This table lists the SIC codes with the ten largest discharges that meet your search criteria. The SIC code discharges are ranked in order of decreasing pollutant mass. Table 2-5 describes the Top SIC Discharges in Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant or Industry.

Top SIC Discharges in Pounds (2007)			
4-Digit SIC Code	**SIC Description**	**Top Pollutant**	**Top Pollutant Pounds**
3255	CLAY REFRACTORIES	Sulfate	129,341,741
4952	SEWERAGE SYSTEMS	Algicides, general	76,868,289
4952	SEWERAGE SYSTEMS	Solids, total suspended	56,485,988
4952	SEWERAGE SYSTEMS	Hardness, total (as CaCO3)	55,764,722
2834	PHARMACEUTICAL PREPARATIONS	Chemical oxygen demand (COD)	48,539,488
1221	BITUMINOUS COAL & LIG, SURFACE	Sulfate	45,556,691
3255	CLAY REFRACTORIES	Chloride	44,636,878
4911	ELECTRICAL SERVICES	Sulfate	42,662,931
4953	REFUSE SYSTEMS	Solids, total dissolved	42,354,024
4952	SEWERAGE SYSTEMS	Sulfate	40,336,770
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Figure 2-4. Example EZ Search Results – Top SIC Discharges in Pounds Table

Table 2-5. Top SIC Discharges in Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
4-Digit SIC Code:	Code that describes the primary activity of the facility. The first two-digits define a major business sector and the last two-digits denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	No	SIC codes are not required to be reported in ICIS-NPDES and PCS, and can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank SIC codes in this table.
SIC Description:	Description that is linked to the 4-Digit SIC Code that identifies the primary activity of the facility.	ICIS-NPDES, PCS	No	A description is provided for all 4-digit SIC codes.
Top Pollutant:	The name used in PCS or ICIS-NPDES to identify the substance discharged. Of the pollutants discharged by each SIC code, the pollutant with the highest annual load is listed.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Top Pollutant Pounds:	For the top pollutant for each SIC code, the annual mass (in units of pounds) discharged to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download on "Users Guide/Technical Documents" tab).	ICIS-NPDES, PCS	No	This table does not display pollutants that have a total annual load of zero.

2.5   Top SIC Discharges in Toxic-Weighted Pounds Table

Figure 2-5 shows an example Top SIC Discharges in Toxic-Weighted Pounds Table. This table lists the SIC codes with the ten largest toxic-weighted discharges that meet your search criteria. The SIC code discharges are ranked in order of decreasing toxic-weighted pound equivalents. Table 2-6 describes the Top SIC Discharges in Toxic-Weighted Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant or Industry.

Top SIC Discharges in Toxic-Weighted Pounds (2007)			
4-Digit SIC Code	**SIC Description**	**Top Pollutant**	**Top Pollutant TWPE**
2491	WOOD PRESERVING	2,3,7,8-Tetrachlorodibenzo-p -dioxin	80,876,988
8211	ELEMENTARY & SECONDARY SCHOOLS	Chlorine	9,511,516
4953	REFUSE SYSTEMS	Silver	195,479
8351	CHILD DAY CARE SERVICES	Chlorine	164,554
6512	OPER OF NONRESIDENTIAL BLDGS	Chlorine	104,558
4953	REFUSE SYSTEMS	Arsenic	101,254
4911	ELECTRICAL SERVICES	Chlorine	64,901
4952	SEWERAGE SYSTEMS	Chlorine	61,910
4952	SEWERAGE SYSTEMS	Cadmium	31,245
4952	SEWERAGE SYSTEMS	Sulfide	28,523

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Figure 2-5. Example EZ Search Results – Top SIC Discharges in Toxic-Weighted Pounds Table

Table 2-6. Top SIC Discharges in Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
4-Digit SIC Code:	Code that describes the primary activity of the facility. The first two-digits define a major business sector and the last two-digits denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	No	SIC codes are not required to be reported in ICIS-NPDES and PCS, and can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank SIC codes in this table.
SIC Description:	Description that is linked to the 4-Digit SIC Code that identifies the primary activity of the facility.	ICIS-NPDES, PCS	No	A description is provided for all 4-digit SIC codes.
Top Pollutant:	The name used in PCS or ICIS-NPDES to identify the substance discharged. Of the pollutants discharged by each SIC code, the pollutant with the highest annual TWPE is listed.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Top Pollutant TWPE:	For the top pollutant for each SIC code, the relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream. See Table 2-3. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges.			Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).

2.6   Top SIC Discharges Table

Figure 2-6 shows an example Top SIC Discharges Table. The Loading Tool only displays this table if you specify a pollutant or pollutant category in your search. This table lists the ten SIC codes with the largest discharges of the pollutant that you specified in your search. The table ranks the SIC codes in the following order based on the type of pollutant that you entered for your search:

- Pollutants with Toxic Weighting Factors: The table ranks SIC codes by decreasing toxic-weighted pound equivalents.
- Pollutants with no Toxic Weighting Factors (e.g., Biochemical Oxygen Demand): The table ranks SIC codes by decreasing pollutant mass.
- Pathogen Indicators: The table ranks SIC codes by decreasing maximum concentration (count per 100 mL).
- Temperature: The table ranks SIC code by decreasing maximum temperature (°F).
- Wastewater Flow: The table ranks SIC codes by decreasing annual wastewater volume (millions of gallons per year).

Table 2-7 describes the Top SIC Discharges Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Industry.

Top SIC Discharges (2007)

4-Digit SIC Code	SIC Description	Avg Conc (mg/L)	Max Conc (mg/L)	Total Pounds (lbs/yr)	Total TWPE (lbs-eq/yr)	Avg Flow (MGD)
1031	LEAD AND ZINC ORES	0.36	10	15,883	10,006	2.47
2879	PESTICIDES & AGRICULTURAL CHEM	20,838	20,838	13,775	8,678	0.59
3341	2NDARY SMELT/NONFERROUS METALS	0.12	0.43	8,005	5,043	2.44
4952	SEWERAGE SYSTEMS	0.022	0.37	5,680	3,578	3.57
4953	REFUSE SYSTEMS	0.023	0.33	1,921	1,211	0.32
1481	NONMETAL MINERAL (EXCEPT FUELS	0.005	0.005	315	198	10.3
7996	AMUSEMENT PARKS	0.039	0.099	290	183	1.22
9711	NATIONAL SECURITY	0.049	0.13	121	76.5	0.509
4581	AIRPORTS, FLYING FIELDS & SER	0.18	0.69	67.7	42.6	0.23
3331	PRIMRY SMELTING & COPPER REFIN	0.003	0.005	61.2	38.6	3.22

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Figure 2-6. Example EZ Search Results – Top SIC Discharges Table

Table 2-7. Top SIC Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
4-Digit SIC Code:	Code that describes the primary activity of the facility. The first two-digits define a major business sector and the last two-digits denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	No	SIC codes are not required to be reported in ICIS-NPDES and PCS, and can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank SIC codes in this table.
SIC Description:	Description that is linked to the 4-Digit SIC Code that identifies the primary activity of the facility.	ICIS-NPDES, PCS	No	A description is provided for all 4-digit SIC codes.
Avg Concentration (mg/L):	The average of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. For each SIC code, this table presents the average of the annual average facility concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Avg Conc (count/100mL)	The average of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. For each SIC code, this table presents the average of the annual average facility concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have an average concentration of zero.

Table 2-7. Top SIC Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Average (°F)	The average of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the annual average facility temperature is the arithmetic average of the reported monthly average temperatures. For each SIC code, this table presents the average of the annual average facility temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have an average temperature of zero.
Max Concentration (mg/L):	The maximum of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. For each SIC code, this table presents the maximum of the annual maximum facility concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Max Conc (count/100mL)	The maximum of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. For each SIC code, this table presents the maximum of the maximum facility concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum concentration of zero.

Table 2-7. Top SIC Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Maximum (°F)	The maximum of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the maximum facility temperature is the maximum of the reported monthly average temperatures. For each SIC code, this table presents the maximum of the maximum facility temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum temperature of zero.
Total Pounds (lbs/yr):	Annual mass discharge of a pollutant to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download on "Users Guide/Technical Documents" tab).Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual load of zero.
Total TWPE (lbs-eq/yr):	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).
Avg Flow (MGD):	The average of the average monitoring period flows in a reporting year (in units of millions of gallons per day). For example, if a facility reports monthly wastewater flows, the facility average flow is the arithmetic average of the reported monthly wastewater flows. For each SIC code, this table presents the average of the facility average wastewater flows.	ICIS-NPDES, PCS	Yes	This result will be zero if a wastewater flow was not reported by the facility, or if the Loading Tool was unable to match the pollutant loading to a wastewater flow in the Loading Tool database.

Table 2-7. Top SIC Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Total Annual Flow (MMGal)	The total annual wastewater volume (in units of millions of gallons) in a reporting year. Note the Loading Tool only displays this column if you select Wastewater Flow in your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual flow of zero.

2.7   Top Discharges to Watersheds in Pounds Table

Figure 2-7 shows an example Top Discharges to Watersheds in Pounds Table. This table lists the watersheds with the ten largest discharges that meet your search criteria. The watershed loads are ranked in order of decreasing pollutant mass. Table 2-8 describes the Top Discharges to Watersheds in Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant or Location/Watershed.

Top Discharges to Watersheds in Pounds (2007)			
HUC-12 Code	**HUC Name**	**Top Pollutant**	**Top Pollutant Pounds**
170603060604	Long Hollow Creek	Solids, total suspended	1,139,165,033
170603060604	Long Hollow Creek	BOD, 5-day, 20 deg. C	914,383,426
180703041300	Mission Beach–Frontal Pacific Ocean	Solids, total dissolved	702,983,482
180400030702	Lower Marsh Creek	Potassium	569,981,693
150100150708	City of Henderson–Las Vegas Wash	Solids, total dissolved	548,019,403
180300071301	Mill Creek	Potassium	540,308,766
180701040302	Lower Dominguez Channel	Chemical oxygen demand (COD)	447,259,409
210100040202	Rio Yauco at mouth	Solids, total dissolved	424,430,776
180201630504	Alamo Creek	Potassium	369,844,659
210100050502	Rio Puerto Nuevo at mouth	Nitrogen	364,350,409
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Figure 2-7. Example EZ Search Results – Top Discharges to Watersheds in Pounds Table

Table 2-8. Top Discharges to Watersheds in Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	No	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank HUC-12 codes in this table.
HUC Name:	The name that corresponds to the HUC-12 Code. It is usually the name for the most significant body of water in the subwatershed. The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OW/WBD_NAD83) which obtains the HUC Name from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include descriptions for all HUC-12 codes.
Top Pollutant:	The name used in PCS or ICIS-NPDES to identify the substance discharged. Of the pollutants discharged in the watershed, the pollutant with the highest annual load is listed.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Top Pollutant Pounds:	Annual mass discharge to a receiving stream (in units of pounds) calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab).	ICIS-NPDES, PCS	No	This table does not display results that have a total annual load of zero.

2.8   Top Discharges to Watersheds in Toxic-Weighted Pounds Table

Figure 2-8 shows an example Top Discharges to Watersheds in Toxic-Weighted Pounds Table. This table lists the watersheds with the ten largest toxic-weighted discharges that meet your search criteria. The watershed loads are ranked in order of decreasing toxic-weighted pound equivalents. Table 2-9 describes the Top Discharges to Watersheds in Toxic-Weighted Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant or Location/Watershed.

Top Discharges to Watersheds in Toxic-Weighted Pounds (2007)

HUC-12 Code	HUC Name	Top Pollutant	Top Pollutant TWPE
180701020403	Salt Canyon-Santa Clara River	Radium-228	1.1005E+013
180500020801	San Pablo Bay Islands	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	944,837,266,194
180500020801	San Pablo Bay Islands	2,3,4,7,8-Pentachlorodibenzofuran	715,830,863,751
180500041002	Oakland Inner Harbor-San Francisco Bay	2,3,7,8-Tetrachlorodibenzo-p-dioxin	370,978,080,099
180500020801	San Pablo Bay Islands	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	103,423,046,833
180500040203	Lower Arroyo Las Positas	2,3,7,8-Tetrachlorodibenzo-p-dioxin	100,707,742,948
180500020801	San Pablo Bay Islands	1,2,3,7,8,9-Hexachlorodibenzofuran	74,850,582,355
180500010401	Suisun Bay Estuaries	2,3,7,8-Tetrachlorodibenzo-p-dioxin	69,135,794,059
180500020801	San Pablo Bay Islands	2,3,4,6,7,8-Hexachlorodibenzofuran	51,333,229,814
180500020801	San Pablo Bay Islands	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	22,403,366,969

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Figure 2-8. Example EZ Search Results – Top Discharges to Watersheds in Toxic-Weighted Pounds Table

Table 2-9. Top Discharges to Watersheds in Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	No	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank HUC-12 codes in this table.
HUC Name:	The name that corresponds to the HUC-12 Code. It is usually the name for the most significant body of water in the subwatershed. The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OW/WBD_NAD83) which obtains the HUC Name from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include descriptions for all HUC-12 codes.
Top Pollutant:	The name used in PCS or ICIS-NPDES to identify the substance discharged. Of the pollutants discharged in the watershed, the pollutant with the highest annual TWPE is listed.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.

Table 2-9. Top Discharges to Watersheds in Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Top Pollutant TWPE:	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges.	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).

2.9   Top Receiving Watersheds Table

Figure 2-9 shows an example Top Receiving Watersheds Table. The Loading Tool only displays this table if you specify a pollutant or pollutant category in your search. This table lists the ten watersheds that receive the largest discharges of the pollutant that you specified in your search. The table ranks the watersheds in the following order based on the type of pollutant that you entered for your search:

- Pollutants with Toxic Weighting Factors: The table ranks watershed loads by decreasing toxic-weighted pound equivalents.
- Pollutants with no Toxic Weighting Factors (e.g., Biochemical Oxygen Demand): The table ranks watershed loads by decreasing pollutant mass.
- Pathogen Indicators: The table ranks watersheds by decreasing maximum concentration (count per 100 mL).
- Temperature: The table ranks watersheds by decreasing maximum temperature (°F).
- Wastewater Flow: The table ranks watersheds by decreasing annual wastewater volume (millions of gallons per year).

Table 2-10 describes the Top Receiving Watersheds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Location/Watershed.

Top Receiving Watersheds (2007)

HUC-12 Code	HUC Name	Avg Concentration (mg/L)	Max Concentration (mg/L)	Total Pounds (lbs/yr)	Total TWPE (lbs-eq/yr)	Avg Flow (MGD)
020600031203	Northwest Harbor–Patapsco River	6	6	173,164	109,093	44.5
180702030804	East Etiwanda Creek–Santa Ana River	0.95	5.7	90,588	57,071	13.7
210100040202	Rio Yauco at mouth	0.11	0.11	85,877	54,102	360
020700080802	Great Seneca Creek	7.55	8	62,207	39,191	8.56
071200061002	Spring Brook–Fox River	20	20	60,682	38,230	3.39
051202010502	Little Duck Creek–Big Duck Creek	31	31	59,395	37,419	3.033
180701060506	Coyote Creek–San Gabriel River	0.35	4.17	49,140	30,958	12.7
020600060304	Charles Branch–Western Branch Patuxent River	8.2	8.2	45,927	28,934	19.4
101402010603	Bordeaux Creek	0.02	0.02	23,152	14,586	380
180201290603	Indian Creek–Weber Creek	5.7	5.7	22,573	14,221	1.3

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Figure 2-9. Example EZ Search Results – Top Receiving Watersheds Table

Table 2-10. Top Receiving Watersheds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	No	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database. However, the EZ Search does not display results for facilities with blank HUC-12 codes in this table.
HUC Name:	The name that corresponds to the HUC-12 Code. It is usually the name for the most significant body of water in the subwatershed. The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OW/WBD_NAD83) which obtains the HUC Name from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include descriptions for all HUC-12 codes.

Table 2-10. Top Receiving Watersheds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Avg Concentration (mg/L):	The average of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. For each HUC-12, this table presents the average of the annual average facility concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Avg Conc (count/100mL)	The average of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. For each HUC-12, this table presents the average of the annual average facility concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have an average concentration of zero.
Average (°F)	The average of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the annual average facility temperature is the arithmetic average of the reported monthly average temperatures. For each HUC-12, this table presents the average of the annual average facility temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have an average temperature of zero.

Table 2-10. Top Receiving Watersheds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Max Concentration (mg/L):	The maximum of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. For each HUC-12, this table presents the maximum of the annual maximum facility concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Max Conc (count/100mL)	The maximum of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. For each HUC-12, this table presents the maximum of the maximum facility concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum concentration of zero.
Maximum (°F)	The maximum of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the maximum facility temperature is the maximum of the reported monthly average temperatures. For each HUC-12, this table presents the maximum of the maximum facility temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum temperature of zero.

Table 2-10. Top Receiving Watersheds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Total Pounds (lbs/yr):	Annual mass discharge of a pollutant to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download on "Users Guide/Technical Documents" tab).Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual load of zero.
Total TWPE (lbs-eq/yr):	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).
Avg Flow (MGD):	The average of the average monitoring period flows (in units of millions of gallons per day) for the reporting year. For example, if a facility reports monthly wastewater flows, the facility average flow is the arithmetic average of the reported monthly wastewater flows. For each HUC-12, this table presents the average of the facility average wastewater flows.	ICIS-NPDES, PCS	Yes	This result will be zero if a wastewater flow was not reported by the facility, or if the Loading Tool was unable to match the pollutant loading to a wastewater flow in the Loading Tool database.
Total Annual Flow (MMGal)	The total annual wastewater volume (in units of millions of gallons) in a reporting year. Note the Loading Tool only displays this column if you select Wastewater Flow in your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual flow of zero.

2.10   Top Facility Discharges in Pounds Table

Figure 2-10 shows an example Top Facility Discharges in Pounds Table. This table lists the facilities with the ten largest discharges that meet your search criteria. The facility loads are ranked in order of decreasing pollutant mass. Table 2-11 describes the Top Facility Discharges in Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant.

Top Facility Discharges in Pounds (2007)

NPDES ID	Facility Name	City, State	SIC Code	HUC-12 Code	Top Pollutant	Top Pollutant Pounds
MO0000710 CEW	HARBISON WALKER REFRACTORIES COMPANY VANDALIA PLANT	VANDALIA , MO	3255		Sulfate	129,341,741
MO0099961 CEW	EAST LYNNE	EAST LYNNE , MO	4952		Algicides, general	76,868,289
MO0111180 CEW	AVENTIS (FORMERLY HOECHST MARION ROUSSEL)	KANSAS CITY , MO	2834		Chemical oxygen demand (COD)	48,539,488
MO0000710 CEW	HARBISON WALKER REFRACTORIES COMPANY VANDALIA PLANT	VANDALIA , MO	3255		Chloride	44,636,878
MO0126080 CEW	MIDWEST COAL, HUME MINE	HUME , MO	1221		Sulfate	43,634,479
MO0115801 CEW	GALAMET INCORPORATED	KANSAS CITY , MO	4953		Solids, total dissolved	33,210,531
MO0004995 CEW	KANSAS CITY WATER TREATMENT PLANT	KANSAS CITY , MO	4941		Solids accumulation rate tot dry weight	32,670,387
MO0101087 CEW	LITTLE BLUE VALLEY SEWER DISTRICT	INDEPENDENCE , MO	4952		Hardness, total (as CaCO3)	29,215,373
MO0098001 CEW	AMERENUE CALLAWAY POWER PLANT	FULTON , MO	4911		Solids, total dissolved	24,168,062
MO0050695 CEW	WELLSVILLE E LAGOON	WELLSVILLE , MO	4952		Solids, total suspended	20,429,268

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Figure 2-10. Example EZ Search Results – Top Facility Discharges in Pounds Table

Table 2-11. Top Facility Discharges in Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NPDES ID:	A nine-character code used to uniquely identify a permitted NPDES facility. The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NDPES, PCS	No	
Facility Name:	The primary name used to identify a facility in PCS or ICIS-NPDES.	FRS, ICIS-NPDES, PCS	No	
City, State:	The city name and two-character state abbreviation for the facility location.	FRS, ICIS-NPDES, PCS	Yes	City names can be blank in FRS, ICIS-NPDES, and PCS. The EZ Search will display states for all facilities and the city name, if provided.
SIC Code:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information.	ICIS-NDPES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS and can be blank for some facilities.
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database.

Table 2-11. Top Facility Discharges in Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NDPES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Total Pounds:	Annual mass discharge of a pollutant to a receiving stream (in units of pounds) calculated using the methodology described in Section 3.3 of the Technical Users Background Document for the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab).	ICIS-NDPES, PCS	No	This table does not display results that have a total annual load of zero.

2.11   Top Facility Discharges in Toxic-Weighted Pounds Table

Figure 2-11 shows an example Top Facility Discharges in Toxic-Weighted Pounds Table. This table lists the facilities with the ten largest toxic-weighted discharges that meet your search criteria. The facility loads are ranked in order of decreasing toxic-weighted pound equivalents. Table 2-12 describes the Top Facility Discharges in Toxic-Weighted Pounds Table in more detail. Note the Loading Tool does not display this table if you enter search criteria for Pollutant.

NPDES ID	Facility Name	City, State	SIC Code	HUC–12 Code	Top Pollutant	Top Pollutant TWPE
MO0120294 ⒸⒺⓌ	KOPPERS FORMERLY BEAZER EAST	KANSAS CITY , MO	2491		2,3,7,8– Tetrachlorodibenzo– p–dioxin	80,876,988
MO0118231 ⒸⒺⓌ	SHELL KNOB SCHOOL DISTRIC	SHELL KNOB , MO	8211		Chlorine	9,511,280
MO0107506 ⒸⒺⓌ	HARTVILLE SANITARY LANDFILL	HARTVILLE , MO	4953		Silver	195,069
MO0129097 ⒸⒺⓌ	CHARLES PHILLIPS	CEDAR HILL , MO	8351		Chlorine	164,554
MO0107506 ⒸⒺⓌ	HARTVILLE SANITARY LANDFILL	HARTVILLE , MO	4953		Arsenic	101,015
MO0125474 ⒸⒺⓌ	AFFILIATED ACCEPTANCE COR	SUNRISE BEACH , MO	6512		Chlorine	93,141
MO0094285 ⒸⒺⓌ	ST MORITZ CONDOMINIUMS	OSAGE BEACH , MO	4952		Chlorine	47,901
MO0097675 ⒸⒺⓌ	THOMAS HILL ENERGY CENTER	CLIFTON HILL , MO	4911		Chlorine	39,088
MO0089109 ⒸⒺⓌ	NEVADA WASTEWATER TREATMENT FACILITY	NEVADA , MO	4952		Sulfide	28,523
MO0098001 ⒸⒺⓌ	AMERENUE CALLAWAY POWER PLANT	FULTON , MO	4911		Chlorine	25,783

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Figure 2-11. Example EZ Search Results – Top Facility Discharges in Toxic-Weighted Pounds Table

Table 2-12. Top Facility Discharges in Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NPDES ID:	A nine-character code used to uniquely identify a permitted NPDES facility. The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NDPES, PCS	No	
Facility Name:	The primary name used to identify a facility in PCS or ICIS-NPDES.	FRS, ICIS-NPDES, PCS	No	
City, State:	The city name and two-character state abbreviation for the facility location.	FRS, ICIS-NPDES, PCS	Yes	City names can be blank in FRS, ICIS-NPDES, and PCS. The EZ Search will display states for all facilities and the city name, if provided.
SIC Code:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information.	ICIS-NDPES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS and can be blank for some facilities.
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database.

Table 2-12. Top Facility Discharges in Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NDPES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Top Pollutant TWPE:	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges.	ICIS-NDPES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).

2.12   Top Facility Discharges Table

Figure 2-12 shows an example Top Facility Discharges Table. The Loading Tool only displays this table if you specify a pollutant or pollutant category in your search. This table lists the ten facilities that discharge the largest quantity of the pollutant that you specified in your search. The table ranks facilities in the following order based on the type of pollutant that you entered for your search:

- Pollutants with Toxic Weighting Factors: The table ranks facilities by decreasing toxic-weighted pound equivalents.
- Pollutants with no Toxic Weighting Factors (e.g., Biochemical Oxygen Demand): The table ranks facilities by decreasing pollutant mass.
- Pathogen Indicators: The table ranks facilities by decreasing maximum concentration (count per 100 mL).
- Temperature: The table ranks facilities by decreasing maximum temperature (°F).
- Wastewater Flow: The table ranks facilities by decreasing annual wastewater volume (millions of gallons per year).

Table 2-13 describes the Top Facility Discharges Table in more detail.

Top Facility Discharges (2007)

NPDES ID Facility Name & Location	SIC Code	HUC-12 Code	Avg Conc (mg/L)	Max Conc (mg/L)	Total Pounds (lbs/yr)	Total TWPE (lbs-eq/yr)	Avg Flow (MGD)
AL0022713 TUSCALOOSA WASTE WATER TREATMENT PLANT , TUSCALOOSA , AL	4952		50	50	2,331,152	1,468,626	15.01
MD0021601 PATAPSCO WASTE WATER TREATME , BALTIMORE , MD	4952	020600031203	6	6	173,164	109,093	44.5
CA8000383 CORONA CITY, DEPT OF WATER & POWER , CORONA , CA	4952	180702030804	2.85	5.7	89,958	56,674	4.61
PR0021661 PRASA YAUCO STP , YAUCO , PR	4952	210100040202	0.11	0.11	85,877	54,102	360
AL0054631 CLANTON WALNUT CREEK WWTP , CLANTON , AL	4952		50	50	63,936	40,280	1.207
WI0022926 BURLINGTON WASTEWATER TREATEMENT FAC , BURLINGTON , WI	4952	071200061002	20	20	60,682	38,230	3.39
IN0032719 ELWOOD STP , ELWOOD , IN	4952	051202010502	31	31	59,395	37,419	3.033
MD0021491 SENECA WASTEWATER TREATMENT PLANT , GERMANTOWN , MD	4952	020700080802	8	8	59,185	37,287	16.3
CA0053911 SAN JOSE CREEK WWRP , WHITTIER , CA	4952	180701060506	1.39	4.17	48,777	30,729	21.8
MD0021741 WASHINGTON SUBURBAN SANITARY COM , UPPER MARLBORO , MD	4952	020600060304	8.2	8.2	45,927	28,934	19.4

Download All Data

Figure 2-12. Example EZ Search Results – Top Facility Discharges Table

Table 2-13. Top Facility Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NPDES ID:	A nine-character code used to uniquely identify a permitted NPDES facility. The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NDPES, PCS	No	
Facility Name:	The primary name used to identify a facility in ICIS-NPDES or PCS.	FRS, ICIS-NPDES, PCS	No	
City, State:	The name and two-character state abbreviation for the facility location.	FRS, ICIS-NPDES, PCS	Yes	City names can be blank in FRS, ICIS-NPDES, and PCS. The EZ Search will display states for all facilities and the city name, if provided.
SIC Code:	Code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information.	ICIS-NDPES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS and can be blank for some facilities.
HUC-12 Code:	Hydrologic Unit Code (HUC) code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include HUC-12's for all NPDES permits in ICIS-NPDES and PCS. As a result the HUC-12 can be blank for some facilities in the Loading Tool database.

Table 2-13. Top Facility Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Avg Concentration (mg/L):	The average of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Avg Conc (count/100mL)	The average of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the annual average facility concentration is the arithmetic average of the reported monthly average concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have an average concentration of zero.
Average (°F)	The average of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the annual average facility temperature is the arithmetic average of the reported monthly average temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have an average temperature of zero.

Table 2-13. Top Facility Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Max Concentration (mg/L):	The maximum of the average monitoring period concentrations in a reporting year. For example, if a facility reports monthly average discharge concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Pollutant measurements can be stored in ICIS-NPDES and PCS as mass quantities or concentrations. If the measurement of interest is a mass quantity, then the Loading Tool will back-calculate the average concentration using the mass quantity and wastewater flow. However, if the Loading Tool cannot identify a wastewater flow for this calculation, then it will display zero for the average concentration.
Max Conc (count/100mL)	The maximum of the average monitoring period pathogen concentrations in a reporting year. For example, if a facility reports monthly average pathogen concentrations, the maximum facility concentration is the maximum of the reported monthly average concentrations. Note the Loading Tool only displays this column if you search on Pathogen Indicators.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum concentration of zero.
Maximum (°F)	The maximum of the average monitoring period wastewater temperatures in a reporting year. For example, if a facility reports monthly average temperatures, the maximum facility temperature is the maximum of the reported monthly average temperatures. Note the Loading Tool only displays this column if you search on Temperature.	ICIS-NPDES, PCS	No	This table does not display results that have a maximum temperature of zero.
Total Pounds (lbs/yr):	Annual mass discharge of a pollutant to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download on "Users Guide/Technical Documents" tab).Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual load of zero.

Table 2-13. Top Facility Discharges Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Total TWPE (lbs-eq/yr):	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges. Note the Loading Tool does not display this column if you select Pathogen Indicators, Temperature, or Wastewater Flow for your search.	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).
Avg Flow (MGD):	The average of the average monitoring period flows (in units of millions of gallons per day) for a reporting year. For example, if a facility reports monthly wastewater flows, the facility average flow is the arithmetic average of the reported monthly wastewater flows.	ICIS-NPDES, PCS	Yes	This result will be zero if a wastewater flow was not reported by the facility, or if the Loading Tool was unable to match the pollutant loading to a wastewater flow in the Loading Tool database.
Total Annual Flow (MMGal)	The total annual wastewater volume (in units of millions of gallons) in a reporting year. Note the Loading Tool only displays this column if you select Wastewater Flow in your search.	ICIS-NPDES, PCS	No	This table does not display results that have a total annual flow of zero.

3.   FACILITY SEARCH RESULTS

You can directly access basic facility information and top pollutant discharges for a particular facility using the Facility Search. Information presented for the facility is divided into the following categories on the facility search results page, shown in Figure 3-1:

- Facility Information (see Table 3-1);
- Top Pollutants in Pounds (see Table 3-2);
- Top Pollutants in TWPE (see Table 3-3);
- Receiving Water Information (see Table 3-4); and
- CWNS Treatment Information (see Table 3-5).

Facility Information

NORTHEAST WPCP, PHILADELPHIA, PA, 19137

NPDES ID: PA0026689
FRS ID: 110001076978
TRI ID:
CWNS ID:
Facility Type: POTW
Permit Type: NPDES Individual Permit
Major/Minor Indicator: Major
County: PHILADELPHIA
Congressional District: Pennsylvania's 3rd District

Latitude: 39.99138
Longitude: -75.085081
Facility Design Flow (MGD): 210
Actual Average Facility Flow (MGD):
4-Digit SIC Code: 4952 – SEWERAGE SYSTEMS
NAICS Code: 221320 –
Likely Point Source Category:
C View Enforcement Compliance Report
E View Effluent Discharge Charts

Top Pollutants by Pound (2007)

Pollutant Name	Total Pounds
BOD, carbonaceous, 20 day, 20 C	8,808,684
Solids, total suspended	8,717,306
BOD, carbonaceous, 05 day, 20 C	4,759,693
Nitrogen	4,447,728
Ammonia	3,880,271
Nitrogen, nitrate dissolved	590,759
Phosphorus	473,514
Nitrite nitrogen, dissolved (as N)	323,453
Chlorine	121,934
Iron	96,052

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Top Pollutants by Toxic-Weighted Pounds (2007)

Pollutant Name	Total TWPE
Chlorine	60,967
Ammonia	4,307
Copper	2,614
Lead	2,285
Nitrite nitrogen, dissolved (as N)	1,035
Zinc	772
Iron	538
Nitrogen, nitrate dissolved	441
Lindane	301
Tetrachloroethylene	91.3

💾 Download All Data

Figure 3-1. Example Facility Search Results Page

Table 3-1. Description of Data presented in Facility Information

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NPDES ID:	A nine-character code used to uniquely identify a permitted NPDES facility. The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NPDES, PCS	No	A NPDES ID is provided for every facility in ICIS-NPDES and PCS.
FRS ID:	12-character code used to uniquely identify a facility site within the EPA Facility Registry System (FRS) database.	FRS	No	A FRS ID is provided for every facility in ICIS-NPDES and PCS.
TRI ID:	Number used to uniquely identify facilities in EPA's TRI database. This ID is also known as the Toxics Release Inventory Facility Identification Number (TRIFID). TRI is a database available to the public that includes toxic chemical releases and waste management activities reported annually by industries.	FRS	Yes	Not all facilities in ICIS-NPDES and PCS report to TRI; therefore not all facilities will have a TRI ID.
CWNS ID:	A unique identifier for facilities in EPA's CWNS database. Most facilities identified are publicly owned treatment works (POTWs). Every four years the EPA and states conduct the survey to determine the capital needs for municipal wastewater treatment facilities to meet the goals in the Clean Water Act.	CWNS	Yes	Only municipal wastewater treatment plants report to CWNS. This field is not displayed for industrial dischargers.
Facility Type:	Facility ownership classification derived from codes in ICIS-NPDES and PCS. Facilities can be classified as publicly-owned treatment works (POTW), non-POTW, federal, or state.	ICIS-NPDES, PCS	No	
Permit Type:	The permit classification in PCS or ICIS-NPDES. The classifications include: NPDES Individual Permit (NPD), NPDES Master General Permit (NGP), General Permit Covered Facility (GPC), State Issued Master General Permit (SNN), Individual IU Permit (IUU), Individual State Issued Permit (SIN).	ICIS-NPDES, PCS	No	

Table 3-1. Description of Data presented in Facility Information

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Major/Minor Indicator:	A facility classification from the NPDES permitting authorities based on: toxic pollutant potential, ratio of discharge flow/stream flow volume, conventional pollutant loading, public health impact, water quality factors, and proximity to costal waters. Major facilities have a larger impact on receiving waters if not controlled than minor facilities; therefore, they receive more regulatory attention than minor facilities.	ICIS-NPDES, PCS	No	The facility search will display either "Major" or "Minor" in this field. If the Facility Search displays "Major" that means that the facility has an "M" in the major/minor indicator field in ICIS-NPDES or PCS. If the Facility Search displays "Minor", then the facility has either an "N" in the major/minor indicator field or the indicator field is blank in ICIS-NPDES or PCS.
County:	The county name for the facility location.	FRS, ICIS-NPDES, PCS	Yes	County names can be blank in FRS, ICIS-NPDES, and PCS.
Congressional District:	An electoral constituency that elects a single member of a congress. There are 435 congressional districts in the U.S.	FRS	Yes	Congressional District information can be blank in FRS.
Latitude:	The latitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.
Longitude:	The longitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.
Facility Design Flow (MGD):	The daily rate of wastewater flow that a facility is designed to discharge (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Design flow information is not required to be entered into ICIS-NPDES or PCS.
Actual Average Facility Flow (MGD):	The daily rate of wastewater flow that a facility actually discharges (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Actual average facility flow information is not required to be entered into ICIS-NPDES or PCS.
4-Digit SIC Code:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information.	ICIS-NPDES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS.

Table 3-1. Description of Data presented in Facility Information

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NAICS Code:	Six-digit code that identifies NAICS industries and has replaced the U.S. Standard Industrial Classification (SIC) system. The first two-digits represent the industry sector, in which there exist 20 broad sectors. The third digit represents the industry subsector, the fourth digit represents the industry group, the fifth digit represents the industry, and the sixth digit specifies the country (i.e. U.S., Canada, or Mexico). See U.S. Census website for more information (http://www.census.gov/epcd/www/naicstab.htm)	ICIS-NPDES, PCS	Yes	NAICS codes are not available for facilities that have data stored in PCS, and NAICS codes are not required in ICIS-NPDES.
Likely Point Source Category:	The Effluent Limitation Guidelines that most likely apply to the facility's primary industrial activity.	ICIS-NPDES, PCS	Yes	Point source category classification is based on a facility's primary SIC code in ICIS-NPDES and PCS. SIC codes are not required to be reported in ICIS-NPDES and PCS. The Facility Search will display a point source category for facilities that 1) have a primary SIC code in ICIS-NPDES and PCS, and 2) have an SIC code that maps to one or more point source categories.

Table 3-2. Top Pollutants by Pound Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Total Pounds:	Annual mass discharge of a pollutant to a receiving stream (in units of pounds) calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download on the "Users Guide/Technical Documents" tab). This table lists the ten pollutants with the largest discharges for your selected facility. The pollutants are ranked in order of decreasing mass.	ICIS-NPDES, PCS	No	This table does not display pollutants that have a total annual load of zero.

Table 3-3. Top Pollutants by Toxic-Weighted Pounds Table Description

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NPDES, PCS	No	A pollutant name is provided for each DMR measurement in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
Total TWPE:	The relative toxicities of different pollutant discharges (in units of TWPE) to a receiving stream in a year. TWPE is calculated by multiplying the pollutant mass (in pounds) by its toxic weighting factor. See Table 2-3. <u>This value is not a measure of risk or potential for human health impacts</u> but is a relative measure of the potential toxicity between pollutant discharges. This table lists the ten pollutants with the largest toxic-weighted discharges for your selected facility. The pollutants are ranked in order of decreasing toxic-weighted pound equivalent (TWPE).	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids), which means that these pollutants do not have a toxicity score (i.e., TWPE = 0).

Table 3-4. Description of Data Presented in Receiving Water Information

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Waterbody Name:	The State Waterbody Name for the receiving stream of the pollutant discharges from the facility. The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (REACH_to_GNIS) which extracts the waterbody name from USGS's Geographic Names Information System (GNIS). Not all receiving waterbodies are named in the GNIS, which means the user may have the text "Not found" displayed. Additionally, this WATERS web service uses the medium resolution NHD and the GNIS data for this resolution is variable. For example, areas around the Great Lakes are sparsely labeled and parts of Lake Michigan are mislabeled as "Techny Reservoir". See the Figure 3-2.	WATERS	Yes	The Loading Tool links facilities with REACH Codes and waterbody names using a WATERS web service. Not all NPDES IDs have a matching REACH Code in the REACH Address Database or waterbody name in the Geographic Names Information System. For more information see Overview of Watershed Data.
12-Digit HUC:	Hydrologic Unit Code (HUC) assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Loading Tool links facilities with hydrologic unit codes (HUC-12) using a WATERS web service. Not all NPDES IDs have a matching HUC-12 in the Watershed Boundary Dataset. For more information see Overview of Watershed Data.

Table 3-4. Description of Data Presented in Receiving Water Information

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Listed for Impairment?:	Flag indicating whether the facility is currently listed on EPA's Clean Water Act Section 303d list of impaired waters. Note the CWA Section 303(d) list of impaired waters does not include impaired waters that have an EPA-approved Total Maximum Daily Load (TMDL) in place, impaired waters for which other pollution control mechanisms are in place and are expected to attain water quality standards, or waters that are impaired as a result of pollution and is not caused by a pollutant. Therefore, this flag does not identify all impaired waters reported in a state's Integrated Report, but only the waters included on a state's approved 303(d) list. The Loading Tool identifies facilities discharge to listed waters using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/303D_WMERC) which accesses EPA's ATTAINS database.	WATERS	Yes	The Loading Tool determines whether a facility discharges to an impaired waterbody using a WATERS web service. If the facility ID links to an impaired waterbody in ATTAINS, then the Facility Search will display "Yes" for this field. If no match is found in ATTAINS, then the Facility Search will display "No" for this fields. For more information see Overview of Watershed Data.
REACH Code:	A unique code assigned to each segment of a stream contained within the US Geological Survey (USGS) hydrography. This 14-digit code has two parts: the first 8 digits are the hydrologic unit code for the subbasin in which the reach exists; the last 6 digits are assigned in sequential order, and arbitrarily among the reaches. The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains REACH codes from EPA's REACH Address Database (RAD).	WATERS	Yes	The Loading Tool links facilities with REACH Codes using a WATERS web service. Not all NPDES IDs have a matching REACH Code in the REACH Address Database. For more information see Overview of Watershed Data.

Table 3-5. Description of Data Presented in Clean Watersheds Needs Survey (CWNS) Treatment Information Box

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Current Treatment in Place:	List of wastewater treatment technologies in place at the facility derived from information contained in the 2008 Clean Watersheds Needs Survey (CWNS) database.	CWNS	Yes	Not all facilities have information on treatment in place in CWNS. The Facility Search excludes information for treatment technologies other than wastewater treatment (e.g., sludge treatment).
Current Advanced Treatment in Place (unchecked boxes means treatment was reported as not present – see discussion below table):	List of current treatment in place at a POTW that is more stringent than secondary treatment or produce a significant reduction in nonconventional or toxic pollutants. A facility is considered to have Advanced Wastewater Treatment if its permit includes one or more of the following: Biochemical Oxygen Demand (BOD) less than 20mg/l; Nitrogen Removal; Phosphorous Removal; Ammonia Removal; Metal Removal; Synthetic Organic Removal. [a] These values are report by POTWs to EPA as part of the 2008 CWNS.	CWNS	Yes	Not all facilities provide advanced treatment information to CWNS.
Residents Served:	Residents Served applies to the population that lives within the service area of the POTW.	CWNS	Yes	Not all facilities provide population information to CWNS.
Non-Residents Served:	Non-resident population applies to the portion of population that do not live within the service area of the selected facility, but that still utilize or are served by the POTW. This population includes persons such as transient, seasonal, and commuter workers, as well as tourist populations.	CWNS	Yes	Not all facilities provide population information to CWNS.

Note: CWNS only contains treatment information for municipal wastewater treatment plants. This field will display "N/A" for all other facilities.
a – See "CWNS 2008 Data Dictionary," http://water.epa.gov/scitech/datait/databases/cwns/CWNS-2008-Data-Dictionary.cfm.

In the 2008 CWNS EPA collected "Current Advanced Treatment in Place" data from POTWs in the "Effluent" section of the survey under "Advanced Treatment Indicators." The EPA user manual stated:

> *"If Advanced Treatment is selected, the Advanced Treatment Indicators check boxes are enabled. Indicate the facility's Advanced Treatment Indicator(s) by checking its box. At least one Advanced Treatment Indicator is required.*
>
> *Check BOD as an Advanced Treatment Indicator only for levels less than or equal to 20 mg/L. For all other indicators, check the box if any limit is included in the permit."*

It is important to note that POTWs may have submitted erroneous 'Advanced Treatment Indicators' data as part of the 2008 CWNS. For example, some POTWs reported "Nitrogen Removal" but not "Ammonia Removal." [Nitrogen removal technology also removes ammonia (NH_3).] EPA did relate or condition the 'Advanced Treatment in Place" categories. The Loading Tool did not make any changes to the CWNS data.
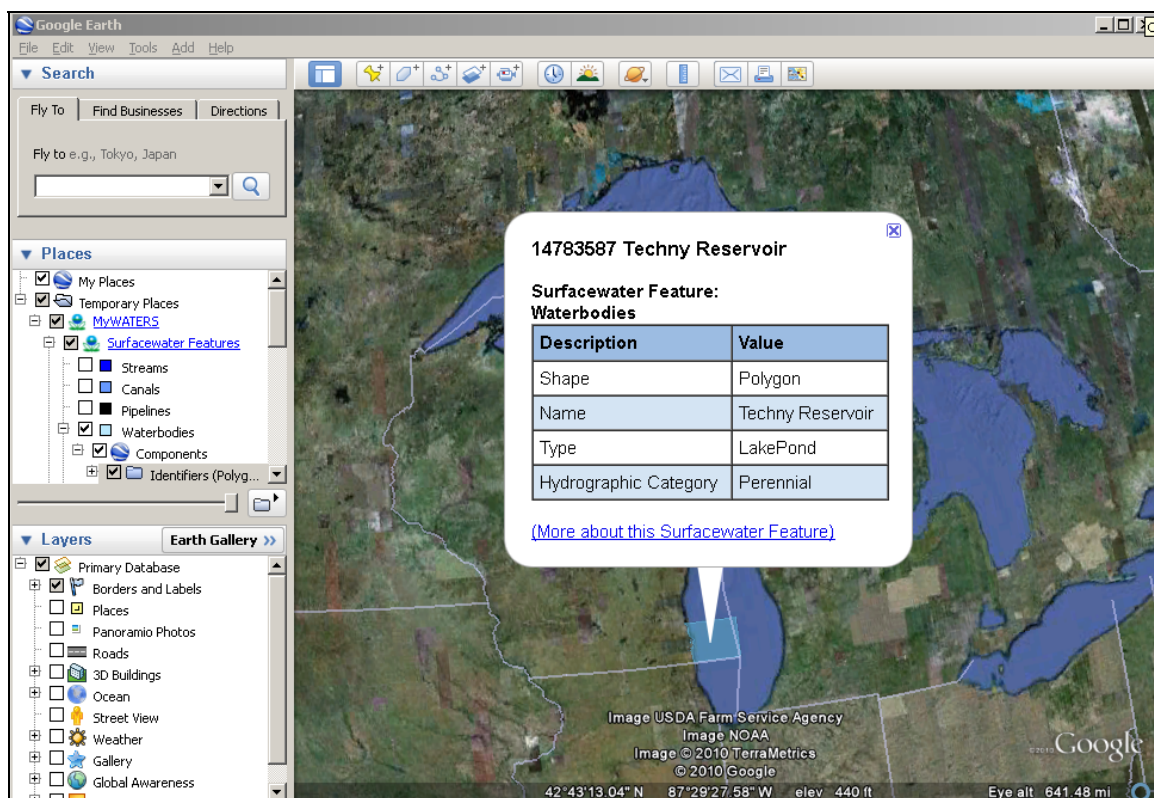
Figure 3-2. Example of GNIS Variability at Medium Resolution NHD

4.   **ADVANCED SEARCH RESULTS**

You can create customized searches and access detailed loadings data using the Advanced Search. When you complete an Advanced Search, the DMR Loading Tool generates a comma separated value (CSV) results file. You may transfer the .csv results file to an offline database program or spreadsheet program for analysis. The Advanced Search can provide loadings on wither a monitoring period basis or annual basis. Table 4-1 describes the CSV file for the monitoring period results and Table 4-2 describes the CSV file for the annual results.

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
PERIOD:	The end date of the monitoring period for the pollutant discharge.	ICIS-NPDES, PCS	No	
SICCODE:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS.
NAICS_CODE:	Six-digit code that identifies NAICS industries and has replaced the U.S. Standard Industrial Classification (SIC) system. The first two-digits represent the industry sector, in which there exist 20 broad sectors. The third digit represents the industry subsector, the fourth digit represents the industry group, the fifth digit represents the industry, and the sixth digit specifies the country (i.e. U.S., Canada, or Mexico). See U.S. Census website for more information (http://www.census.gov/epcd/www/naicstab.htm)	ICIS-NPDES, PCS	Yes	NAICS codes are not available for facilities that have data stored in PCS, and NAICS codes are not required in ICIS-NPDES.
UIN:	Unique Identification Number is the 12 character code used to uniquely identify a facility site within the EPA Facility Registry System (FRS) database. The code is also known as the FRS ID.	FRS	No	A FRS ID is provided for every facility in ICIS-NPDES and PCS.
EXTERNAL_ PERMIT_NMBR:	A nine-character code used to uniquely identify a permitted NPDES facility (NPDES ID). The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NPDES, PCS	No	A NPDES ID is provided for every facility in ICIS-NPDES and PCS.
FACILITY_NAME:	The primary name used to identify a facility in ICIS-NPDES or PCS.	FRS, ICIS-NPDES, PCS	No	
FACILITY_TYPE_ INDICATOR:	Facility ownership classification derived from codes in ICIS-NPDES and PCS. Facilities can be classified as publicly-owned treatment works (POTW), non-POTW, federal, or state.	ICIS-NPDES, PCS	No	

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
PERMIT_TYPE_ CODE:	The permit classification in the DMR Pollutant Loading Tool. These classifications include the following: NPDES Individual Permit (NPD), NPDES Master General Permit (NGP), General Permit Covered Facility (GPC), State Issued Master General Permit (SNN), Individual IU Permit (IUU), Individual State Issued Permit (SIN).	ICIS-NPDES, PCS	No	
CITY:	The city name for the facility location.	FRS, ICIS-NPDES, PCS	Yes	City names can be blank in FRS, ICIS-NPDES, and PCS.
STATE_CODE:	The two-character state abbreviation for the facility location.	ICIS-NPDES, PCS	No	
ZIP:	The 5-digit mail code for the facility address.	FRS, ICIS-NPDES, PCS	Yes	Zip codes are not required in FRS, ICIS-NPDES, or PCS.
COUNTY:	The county name for the facility location.	FRS, ICIS-NPDES, PCS	Yes	County names can be blank in FRS, ICIS-NPDES, and PCS.
EPA_REGION_CODE:	The EPA-designated area that U.S. States, territories, and tribes are assigned to. The U.S. is divided into 10 EPA Regions.	ICIS-NPDES, PCS	No	
FACILITY LATITUDE:	The latitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.
FACILITY LONGITUDE:	The longitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
MAJOR/MINOR STATUS:	A facility classification from the NPDES permitting authorities based on: toxic pollutant potential, ratio of discharge flow/stream flow volume, conventional pollutant loading, public health impact, water quality factors, and proximity to costal waters. Major facilities have a larger impact on receiving waters if not controlled than minor facilities; therefore, they receive more regulatory attention than minor facilities. A Major/Minor status code of "M" indicates the facility is a major. This field is blank for minor facilities.	ICIS-NPDES, PCS	No	The advanced search will display either "Major" or "Minor" in this field. If the Advanced Search displays "Major" that means that the facility has an "M" in the major/minor indicator field in ICIS-NPDES or PCS. If the Advanced Search displays "Minor", then the facility has either an "N" in the major/minor indicator field or the indicator field is blank in ICIS-NPDES or PCS.
HUC12:	Code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of twelve digits which correspond to six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC).	WATERS	Yes	The Loading Tool links facilities with hydrologic unit codes (HUC-12) using a WATERS web service. Not all NPDES IDs have a matching HUC-12 in the Watershed Boundary Dataset. For more information see Overview of Watershed Data.
TOTAL_DESIGN_ FLOW_NMBR (MGD):	The daily rate of wastewater flow that a facility is designed to discharge (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Design flow information is not required to be entered into ICIS-NPDES or PCS.
ACTUAL_ AVERAGE_FLOW_N MBR (MGD):	The daily rate of wastewater flow that a facility actually discharges (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Actual average facility flow information is not required to be entered into ICIS-NPDES or PCS.
PERM_FEATURE_NM BR:	A three-character code in ICIS-NPDES and PCS that identifies the point of discharge (e.g., outfall) for a facility. A NPDES permit may have multiple points of discharge.	ICIS-NPDES, PCS	No	A permit feature number is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
MONITORING_ LOCATION_CODE:	A single-character code in ICIS-NPDES and PCS that indicates the sampling location for each pollutant measurement. The Loading Tool only includes locations for effluent sampling points. These include: 1 – Effluent gross discharge; 2: Effluent net discharge; A – After Disinfection; B – Before Disinfection and; SC – See Comments.	ICIS-NPDES, PCS	No	A monitoring location code is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
PARAMETER	A five-character code in ICIS-NDPES and PCS that identifies the regulated pollutant parameter in a NPDES permit and specifies both the pollutant name and pollutant form (e.g., dissolved or suspended). Multiple parameters can apply to a single pollutant or CAS number.	ICIS-NPDES, PCS	No	A parameter code is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
PARAMETER DESCRIPTION:	Description/parameter name that corresponds to the five-digit parameter code.	ICIS-NPDES, PCS	No	A parameter description is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
CAS:	Chemical Abstract Service Number assigned by the American Chemical Society that uniquely identifies a chemical.	ICIS-NPDES, PCS	Yes	Not all pollutants have a Chemical Abstract Service (CAS) Number (for example, Total Suspended Solids).
Substance Registry System ID:	Unique identification number assigned to substances, such as chemicals, biological organisms, physical properties, and miscellaneous objects by EPA's Substance Registry Services, to provide a common substance identification method across multiple regulatory programs.	SRS	Yes	Not all pollutants have a Chemical Abstract Service (CAS) Number; and therefore do not have an SRS ID (for example, Total Suspended Solids).
POLLUTANT LOAD (KG/PERIOD):	The total mass discharge of a pollutant to a receiving stream for a monitoring period calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab).	ICIS-NPDES, PCS	Yes	
WASTEWATER FLOW (MMGal/PERIOD):	The total wastewater volume discharged per monitoring period (in units of millions of gallons).	ICIS-NPDES, PCS	Yes	

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
AVG DAILY LOAD (KG/DAY):	The average mass pollutant discharge per day for a monitoring period (in units of kilograms per day).	ICIS-NPDES, PCS	Yes	
AVG CONC (MG/L):	The average pollutant concentration for a monitoring period.	ICIS-NPDES, PCS	Yes	
AVG DAILY FLOW (MGD):	The average daily rate of flow that a facility discharges for a monitoring period (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	
AVG WASTEWATER TEMP (F):	The average wastewater temperature for a monitoring period.	ICIS-NPDES, PCS	Yes	
AVG WASTEWATER pH:	The average wastewater pH for a monitoring period.	ICIS-NPDES, PCS	Yes	
LOL (OPTION 1) (KG/PERIOD):	The difference between the Mass Discharge and the Mass Limit ("Load-over-Limit") calculated using the methodology described in Section 3.1.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab). If the difference is positive, the discharge exceeded the permit limit. If the difference is zero, the discharge is below the limit.	ICIS-NPDES, PCS	Yes	The Advanced Search will only display results if the pollutant load is higher than the permit limit.
LOL (OPTION 2) (KG/PERIOD):	The difference between the Mass Discharge and the Mass Limit ("Load-over-Limit") calculated using the methodology described in Section 3.1.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab). If the difference is positive, the discharge exceeded the permit limit. If the difference is negative, the discharge was below the limit.	ICIS-NPDES, PCS	Yes	The Advanced Search will only display results if the pollutant load corresponds to a numeric permit limit.

Table 4-1. Monitoring Period Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NONDETECT INDICATOR:	Flag indicating whether the reported pollutant concentration for the monitoring period was below the detection limit.	ICIS-NPDES, PCS	No	The Advanced Search identifies pollutant measurements that are not detected using data qualifiers in ICIS-NPDES and PCS. If the search finds a qualifier for the monitoring period measurement, then the search will display "Yes" in this field. If the search does not find a qualifier, then it will display "No".
MEASUREMENT TYPE:	The PCS or ICIS-NPDES measurement field (e.g., quantity or concentration field) that the Loading Tool selected to calculate the pollutant load.	ICIS-NPDES, PCS	No	

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
PERIOD:	The calendar year for the annual pollutant loadings.	ICIS-NPDES, PCS	No	
SICCODE:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS.
NAICS_CODE:	Six-digit code that identifies NAICS industries and has replaced the U.S. Standard Industrial Classification (SIC) system. The first two-digits represent the industry sector, in which there exist 20 broad sectors. The third digit represents the industry subsector, the fourth digit represents the industry group, the fifth digit represents the industry, and the sixth digit specifies the country (i.e. U.S., Canada, or Mexico). See U.S. Census website for more information (http://www.census.gov/epcd/www/naicstab.htm)	ICIS-NPDES, PCS	Yes	NAICS codes are not available for facilities that have data stored in PCS, and NAICS codes are not required in ICIS-NPDES.
UIN:	The Unique Identification Number which is the 12 character code used to uniquely identify a facility site within the EPA Facility Registry System (FRS) database. The code is also known as the FRS ID.	FRS	No	A FRS ID is provided for every facility in ICIS-NPDES and PCS.
EXTERNAL_ PERMIT_NMBR:	A nine-character code used to uniquely identify a permitted NPDES facility (NPDES ID). The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NPDES, PCS	No	A NPDES ID is provided for every facility in ICIS-NPDES and PCS.
FACILITY_NAME:	The primary name used to identify a facility in ICIS-NPDES or PCS.	FRS, ICIS-NPDES, PCS	No	
FACILITY_TYPE_ INDICATOR:	Facility ownership classification derived from codes in ICIS-NPDES and PCS. Facilities can be classified as publicly-owned treatment works (POTW), non-POTW, federal, or state.	ICIS-NPDES, PCS	No	

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
PERMIT_TYPE_ CODE:	The permit classification in the DMR Pollutant Loading Tool. These classifications include the following: NPDES Individual Permit (NPD), NPDES Master General Permit (NGP), General Permit Covered Facility (GPC), State Issued Master General Permit (SNN), Individual IU Permit (IUU), Individual State Issued Permit (SIN).	ICIS-NPDES, PCS	No	
CITY:	The city name for the facility location.	FRS, ICIS-NPDES, PCS	Yes	City names can be blank in FRS, ICIS-NPDES, and PCS.
STATE_CODE:	The two-character state abbreviation for the facility location.	ICIS-NPDES, PCS	No	
ZIP:	The 5-digit mail code for the facility address.	FRS, ICIS-NPDES, PCS	Yes	Zip codes are not required in FRS, ICIS-NPDES, or PCS.
COUNTY:	The county name for the facility location.	FRS, ICIS-NPDES, PCS	Yes	County names can be blank in FRS, ICIS-NPDES, and PCS.
EPA_REGION_COD E:	The EPA-designated area that U.S. States, territories, and tribes are assigned to. The U.S. is divided into 10 EPA Regions.	ICIS-NPDES, PCS	No	
FACILITY LATITUDE:	The latitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.
FACILITY LONGITUDE:	The longitude coordinate for the facility location in units of decimal degrees.	FRS, ICIS-NPDES, PCS	Yes	Latitude and longitude coordinates are not required to be entered into FRS, ICIS-NPDES, or PCS.

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
MAJOR/MINOR STATUS:	A facility classification from the NPDES permitting authorities based on: toxic pollutant potential, ratio of discharge flow/stream flow volume, conventional pollutant loading, public health impact, water quality factors, and proximity to costal waters. Major facilities have a larger impact on receiving waters if not controlled than minor facilities; therefore, they receive more regulatory attention than minor facilities. A Major/Minor status code of "M" indicates the facility is a major. This field is blank for minor facilities.	ICIS-NPDES, PCS	No	The advanced search will display either "Major" or "Minor" in this field. If the Advanced Search displays "Major" that means that the facility has an "M" in the major/minor indicator field in ICIS-NPDES or PCS. If the Advanced Search displays "Minor", then the facility has either an "N" in the major/minor indicator field or the indicator field is blank in ICIS-NPDES or PCS.
HUC12:	Code assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of twelve digits which correspond to six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC).	WATERS	Yes	The Loading Tool links facilities with hydrologic unit codes (HUC-12) using a WATERS web service. Not all NPDES IDs have a matching HUC-12 in the Watershed Boundary Dataset. For more information see Overview of Watershed Data.
TOTAL_DESIGN_FLOW_NMBR (MGD):	The daily rate of wastewater flow that a facility is designed to discharge (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Design flow information is not required to be entered into ICIS-NPDES or PCS.
ACTUAL_AVERAGE_FLOW_NMBR (MGD):	The daily rate of wastewater flow that a facility actually discharges (in units of millions of gallons per day).	ICIS-NPDES, PCS	Yes	Actual average facility flow information is not required to be entered into ICIS-NPDES or PCS.
PERM_FEATURE_NMBR:	A three-character code in ICIS-NPDES and PCS that identifies the point of discharge (e.g., outfall) for a facility. A NPDES permit may have multiple points of discharge.	ICIS-NPDES, PCS	No	A permit feature number is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
MONITORING_LOCATION_CODE:	A single-character code in ICIS-NPDES and PCS that indicates the sampling location for each pollutant measurement. The Loading Tool only includes locations for effluent sampling points. These include: 1 – Effluent gross discharge; 2: Effluent net discharge; A – After Disinfection; B – Before Disinfection and; SC – See Comments.	ICIS-NPDES, PCS	No	A monitoring location code is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
PARAMETER:	A five-digit code in ICIS-NDPES and PCS that identifies the regulated pollutant parameter in a NPDES permit and specifies both the pollutant name and pollutant form (e.g., dissolved or suspended). Multiple parameters can apply to a single pollutant or CAS number.	ICIS-NPDES, PCS	No	A parameter code is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
PARAMETER DESCRIPTION:	Description/parameter name that corresponds to the five-digit parameter code.	ICIS-NPDES, PCS	No	A parameter description is provided for each DMR measurement and limit in ICIS-NPDES and PCS. See About the Data for more information about DMR data completeness.
CAS:	Chemical Abstract Service Number assigned by the American Chemical Society that uniquely identifies a chemical.	ICIS-NPDES, PCS	Yes	Not all pollutants have a Chemical Abstract Service (CAS) Number (for example, Total Suspended Solids).
Substance Registry System ID:	Unique identification number assigned to substances, such as chemicals, biological organisms, physical properties, and miscellaneous objects by EPA's Substance Registry Services, to provide a common substance identification method across multiple regulatory programs.	SRS	Yes	Not all pollutants have a Chemical Abstract Service (CAS) Number; and therefore do not have an SRS ID (for example, Total Suspended Solids).
POLLUTANT LOAD (KG/YR):	Annual mass discharge of a pollutant to a receiving stream calculated using the methodology described in Section 3.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab).	ICIS-NPDES, PCS	No	
WASTEWATER FLOW (MMGal/YR):	The total annual wastewater volume discharged (in units of millions of gallons).	ICIS-NPDES, PCS	No	

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
AVG DAILY LOAD (KG/DAY):	The average mass discharge (in units of kilograms per day) for a calendar year calculated as the arithmetic average of the average daily loads for all monitoring periods in the calendar year.	ICIS-NPDES, PCS	No	
AVG CONC (MG/L):	The average pollutant concentration for a calendar year calculated as the arithmetic average of the average pollutant concentrations for all monitoring periods in the calendar year.	ICIS-NPDES, PCS	No	
AVG DAILY FLOW (MGD):	The average daily rate of flow that a facility discharges for a calendar year calculated as the arithmetic average of the average daily wastewater flows for all monitoring periods in the calendar year (in units of millions of gallons per day).	ICIS-NPDES, PCS	No	
AVG WASTEWATER TEMP (F):	The arithmetic average of the average wastewater temperature for all monitoring periods in a calendar year.	ICIS-NPDES, PCS	No	
AVG WASTEWATER pH:	The arithmetic average of the average wastewater pH for all monitoring periods in a calendar year.	ICIS-NPDES, PCS	No	
LOL (OPTION 1) (KG/YR):	The sum of the differences between the Mass Discharges and the Mass Limits for all monitoring periods in a calendar year calculated using the methodology described in Section 3.1.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab). If the difference is positive, the discharge exceeded the permit limit during the calendar year. If the difference is zero, the discharge was below the limit for the entire calendar year.	ICIS-NPDES, PCS	Yes	The Advanced Search will only display results if the pollutant load is higher than the permit limit.

Table 4-2. Advanced Search Annual Basis Results CSV File

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
LOL (OPTION 2) (KG/YR):	The sum of the differences between the Mass Discharges and the Mass Limits for all monitoring periods in a calendar year calculated using the methodology described in Section 3.1.3 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" tab). If the difference is positive, the discharge exceeded the permit limit during the calendar year. If the difference is negative, then the discharges were below the limit on average for the calendar year.	ICIS-NPDES, PCS	Yes	The Advanced Search will only display results if the pollutant load corresponds to a numeric permit limit.
INCLUDES NONDETECTS:	Flag to identify annual pollutant loads that include at least one monitoring period concentration was below the detection limit.	ICIS-NPDES, PCS	No	The Advanced Search identifies pollutant measurements that are not detected using data qualifiers in ICIS-NPDES and PCS. If the search finds a qualifier for any of the monitoring periods for the calendar year, then the search will display "Yes" in this field. If the search does not find any qualifiers, then it will display "No".
ESTIMATION FACTOR:	Weighting factor used when the estimation function is applied to account for periods of missing data for a reporting year. This is calculated by dividing 12 by the sum of the number of months with DMR data and the number of months with no discharge.	ICIS-NPDES, PCS	No	If all periods for the calendar year are accounted for in the annual load, then the Estimation Factor will equal 1.

5.   EPA LOOK-UP TABLE SEARCH RESULTS

The Loading Tool provides four searches that you can use to look-up information, shown in Figure 5-1:

- *Facility ID Look-Up (see Table 5-1):* Using the Facility ID Look-up, you can specify any one of the following facility ID fields: National Pollutant Discharge Elimination System (NPDES) ID, Facility Registry System (FRS) ID, Clean Watershed Needs Survey (CWNS) ID, or Toxic Release Inventory (TRI) ID. When you click *Search*, the Loading Tool will display any matching IDs for the other facility ID fields.

- *Industry Code Look-Up (see Table 5-2):* Using the Industry Code Look-Up, you can enter a Standard Industrial classification (SIC) code, a North American Industry Classification System (NAICS) code, or a Point Source Category Code(s). When you click *Search*, the Loading Tool will return the corresponding Point Source Category Code(s), SIC code(s), and NAICS code(s).

- *Pollutant Look-Up (see Table 5-3):* Using the Pollutant Look-Up, you can enter either a pollutant name or Chemical Abstracts Service (CAS) Number. When you click *Search*, the Loading Tool will display the corresponding parameter code(s), system registry service (SRS) IDs, pollutant toxic weighting factor (TWF), and pollutant category(ies).

- *Watershed Look-Up (see Table 5-4):* Using the Watershed Look-Up, you can enter a 5-digit zip code and the Loading Tool will return the corresponding 12 digit hydrologic unit codes (HUC-12).

Figure 5-1. EPA Look-Up Table Searches

Table 5-1. Facility ID Look-Up Search Results

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
NPDES ID:	A nine-character code used to uniquely identify a permitted NPDES facility (NPDES ID). The NPDES permit program regulates the direct discharge of pollutants into US waters.	ICIS-NPDES, PCS	No	A NPDES ID is provided for every facility in ICIS-NPDES and PCS.
FRS ID:	Twelve-character code used to uniquely identify a facility site within the EPA Facility Registry System (FRS) database.	FRS	No	A FRS ID is provided for every facility in ICIS-NPDES and PCS.
TRI ID:	Number used to uniquely identify facilities in EPA's TRI database. This ID is also known as the Toxics Release Inventory Facility Identification Number (TRIFID). TRI is a database available to the public that includes toxic chemical releases and waste management activities reported annually by industries.	FRS	Yes	Not all facilities in ICIS-NPDES and PCS report to TRI; therefore not all facilities will have a TRI ID.
CWNS ID (POTWs only):	Number used to uniquely identify facilities in EPA's Clean Watersheds Needs Survey (CWNS). Note: CWNS only contains information for municipal wastewater treatment plants.	CWNS	Yes	Only municipal wastewater treatment plants report to CWNS. This field is not displayed for industrial dischargers.

Table 5-2. Industry Code Look-Up Search Results

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
4-Digit SIC Code:	Four-digit code that describes the primary activity of the facility. The two-digit code defines a major business sector; the four-digit code contains two additional numbers that denote a facility's specialty within the major sector. See the U.S. Department of Labor website for more information (http://www.osha.gov/pls/imis/sicsearch.html).	ICIS-NPDES, PCS	Yes	SIC codes are not required to be reported in ICIS-NPDES and PCS.
NAICS Code:	Six-digit code that identifies NAICS industries and has replaced the U.S. Standard Industrial Classification (SIC) system. The first two-digits represent the industry sector, in which there exist 20 broad sectors. The third digit represents the industry subsector, the fourth digit represents the industry group, the fifth digit represents the industry, and the sixth digit specifies the country (i.e. U.S., Canada, or Mexico). See U.S. Census website for more information (http://www.census.gov/epcd/www/naicstab.htm)	ICIS-NPDES, PCS	Yes	NAICS codes are not available for facilities that have data stored in PCS, and NAICS codes are not required in ICIS-NPDES.
Point Source Category Code:	A three-digit code that corresponds to an Effluent Limitations Guideline's 40 CFR Part. For example, Point Source Category Code 414 corresponds to Organic, Chemicals, Plastics, and Synthetic Fibers (40 CFR Part 414).	ICIS-NPDES, PCS	Yes	EPA has developed crosswalks to relate SIC codes to point source categories and NAICS codes to point source categories. The crosswalks link SIC Codes and NAICS codes to point source categories if EPA determined that the industrial activities described by the SIC and NAICS were covered under the applicability of the effluent limitations guidelines for the point source category. Not all SIC codes and NAICS codes link to a point source category. See Overview of Industry Lookup for more information.

Table 5-3. Pollutant Look-Up Search Results

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Pollutant Name:	The name used in PCS or ICIS-NPDES to identify the substance discharged.	ICIS-NPDES, PCS	No	A pollutant name is provided for each pollutant parameter in ICIS-NPDES and PCS.
Parameter Code(s):	Five-character code in ICIS-NDPES and PCS that identifies the regulated pollutant parameter in a NPDES permit and specifies both the pollutant name and pollutant form (e.g., dissolved or suspended). Multiple parameters can apply to a single pollutant or CAS number.	ICIS-NPDES, PCS	No	A parameter code is provided for each pollutant parameter in ICIS-NPDES and PCS.
Pollutant Code:	Five-character code in ICIS-NDPES that uniquely links to a pollutant name and CAS number.	ICIS-NPDES, PCS	No	A pollutant code is provided for each pollutant parameter in ICIS-NPDES and PCS.
CAS Number:	Chemical Abstract Service Number assigned by the American Chemical Society that uniquely identifies a chemical.	ICIS-NPDES, PCS	Yes	Not all pollutants have a Chemical Abstract Service (CAS) Number (for example, Total Suspended Solids).
Substance Registry Service (SRS) ID:	Unique identification number assigned to substances, such as chemicals, biological organisms, physical properties, and miscellaneous objects by EPA's Substance Registry Services, to provide a common substance identification method across multiple regulatory programs.	SRS	Yes	Pollutants that do not have a Chemical Abstract Service (CAS) Number (for example, Total Suspended Solids) do not have SRS IDs.

Table 5-3. Pollutant Look-Up Search Results

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
TWF:	EPA's Office of Water's Engineering and Analysis Division (EAD) developed TWFs for use in its effluent limitations guidelines and standards (ELGs) development program to allow comparison of pollutants with varying toxicities using data from PCS, ICIS-NPDES, and EPA's Toxics Release Inventory (TRI). [a] The DMR Pollutant Loading Tool makes this data more available to the public (as this facility specific TWPE discharges were previously available only through EPA's docket system supporting its ELG program). Where data are available, these TWFs reflect both aquatic life and human health effects. For each facility that reports PCS and ICIS-NPDES, EPA multiplies the pounds of discharged pollutants by pollutant-specific TWFs. This calculation results in an estimate of the discharged toxic-weighted pound equivalents (TWPEs). See Table 2-3.	ICIS-NPDES, PCS	Yes	Not all pollutants have a toxic weighting factor (for example, Total Suspended Solids).
Pollutant Category(ies):	List of all applicable pollutant categories for the specified pollutant. These categories may include: Conventional Pollutants, Metals, Nitrogen, Organic Enrichment, Pathogen Indicators, Phosphorus, Priority Pollutants, Solids, Temperature, and Wastewater Flow. Section 3.3.2 of the *Technical Users Background Document for the DMR Pollutant Loading Tool* (available for download from "Users Guide/Technical Documents" Tab) describes the pollutant categories and how the Loading Tool calculates the pollutant category loads.	N/A	Yes	The Lookup Search links pollutants to pollutant categories using a pollutant category list that was developed by EPA. Not all pollutants link to pollutant categories. Pollutant category lists are available in the Technical Users Background Document for the DMR Pollutant Loading Tool.

a – See a general discussion of how EPA develops, calculates, and uses TWFs in the following document: "Toxic Weighting Factor Development in Support of CWA 304(m) Planning Process," June 2006. [Available at: www.regulations.gov. Document No. EPA-HQ-OW-2004-0032-1634].

Table 5-4. Watershed Look-Up Search Results

Table Column	Description	Data Source	Can Result be Zero/Blank?	Considerations for Interpreting Results
Zip Code:	The five-digit postal code entered by user for the geographic area of interest.	User-entered	No	
HUC-12 Code(s):	Hydrologic Unit Code (HUC) assigned by the US Geological Survey used to classify watersheds in the United States and the Caribbean. Code consists of two to twelve digits based on six levels of classification: Region (first-level, 2-digit HUC), Subregion (second-level, 4-digit HUC), Accounting unit (third-level, 6-digit HUC), Cataloguing unit (fourth-level, 8-digit HUC), Watershed (fifth-level, 10-digit HUC), and Subwatershed (sixth-level, 12-digit HUC). The Loading Tool obtains this data element using a Watershed Assessment Tracking and Environmental ResultS (WATERS) web service (OWRAD/PCS_WMERC) which obtains the HUC-12 code from the Natural Resources Conservation Service's Watershed Boundary Dataset.	WATERS	Yes	The Lookup Table search will produce results only if the specified zip code overlaps with a Hydrologic Unit Code (HUC) in the Watershed Boundary Database.
HUC-12 Name(s):	The name that corresponds to the HUC-12 Code. It is usually the name for the most significant body of water in the subwatershed. The Loading Tool obtains this data element using a WATERS web service which extracts the HUC name from EPA's Watershed Boundary Dataset.	WATERS	Yes	The Watershed Boundary Dataset does not include descriptions for all HUC-12 codes.